

REMARKS

By this response, no claims are amended, cancelled, or added. Accordingly, claims 1, 2, 4, 6-15, 39-50, and 52 are pending in the present application. Accordingly, favorable reconsideration of the pending claims is respectfully requested.

1. Rejections Under 35 U.S.C. § 102

Claims 1, 4, and 10 have been rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 5,644,247 to Hyun et al. (“Hyun”) for the reasons set forth on page 2 of the Office Action. Applicants respectfully traverse.

Independent claim 1 recites, among other things:

the electrical conductor having a receiving end on the planar surface of the portion of the electrically insulative substrate for *contacting* an electrically conductive terminal on connecting to said semiconductive device at electrically conductive terminals of said semiconductive device and *such that at least some of said terminals are located in the region between said semiconductive device and said outermost surface of said substrate*

(emphasis added). Similarly, independent claim 10 recites, among other things:

the electrical conductor having a receiving end on said portion for connecting to said semiconductive device at electrically conductive terminals of said semiconductive device *such that at least some of said terminals are located in the region between said semiconductive device and said outermost surface of said sheet*

(emphasis added). As also depicted in Figures 1, 2, and 6-8, claims 1 and 10 thus recite that some of the terminals (*e.g.* terminal 30) are located between the semiconductive device (*e.g.* semiconductive device 16) and the outermost surface of the substrate (*e.g.* substrate 18). Further, in addition to having the terminals located between the semiconductive device and the substrate, claim 1 also recites that the receiving end is for “contacting” the terminal.

In contrast, *Hyun* teaches that land patterns 27 on a substrate 22 are wire bonded to bonding pads 25 on a semiconductor chip 26. Nowhere does *Hyun* teach or suggest “contacting” or “connecting” between a terminal and a receiving end “such that at least some of said terminals are located in the region between said semiconductive device and said outermost surface of said substrate.”

Therefore, Applicants respectfully submit that *Hyun* does not disclose the limitations of present claims 1 and 10. Claim 4 depends from claim 1, includes the limitations therein, and is therefore patentable over *Hyun* for at least the reasons presented hereinabove with respect to claim 1. Applicants therefore respectfully request that the rejections of claims 1, 4, and 10 under 35 U.S.C. § 102(b) be withdrawn.

2. Rejections Under 35 U.S.C. § 103

Claims 2, 6-15, 39-50, and 52 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hyun* in view of U.S. Patent No. 4,831,212 to Ogata *et al.* (“*Ogata*”), U.S. Patent No. 5,621,333 to Long *et al.* (“*Long*”), and U.S. Patent No. 5,532,612 to Liang *et al.* (“*Liang*”) for the reasons set forth on pages 2-4 of the Office Action. Applicants respectfully traverse.

Each of independent claims 1, 10, 13-15, 45, and 52 recites either, “such that at least some of said terminals are located in the region between said semiconductive device and said outermost surface of said substrate” (claims 1, 45, and 52) or “such that at least some of said terminals are located in the region between said semiconductive device and said outermost surface of said sheet” (claims 10 and 13-15). As also depicted in Figures 1, 2, and 6-8, claim 1, 10, 13-15, 45, and 52 thus recite that some of the terminals (*e.g.* terminal 30) are located between the semiconductive device (*e.g.* semiconductive device 16) and the outermost surface of the substrate (*e.g.* substrate 18).

Further, in addition to having the terminals located between the semiconductive device and the substrate, claim 1 also recites that the receiving end is for "contacting" the terminal.

In contrast, *Hyun* teaches that land patterns 27 on a substrate 22 are wire bonded to bonding pads 25 on a semiconductor chip 26. Nowhere does *Hyun* teach or suggest "contacting" or "connecting" between a terminal and a receiving end "such that at least some of said terminals are located in the region between said semiconductive device and said outermost surface of said substrate."

Rather, *Hyun* teaches very specific structures and methods that use wire bonds and double sided adhesives to removably connect a semiconductive device to a substrate. As noted by *Hyun*, this structure requires the use of a separate casing 29 that "prevents deformation of the wire 28." Col. 5, ll 23-24. This structure is more complex and requires more parts than are claimed in the present claims 1, 10, 13-15, 45, and 52. In particular, the present claims are directed to embodiments of the invention that provide a more compact structure that do not require the formation of wire bonds or the use of a casing for protection.

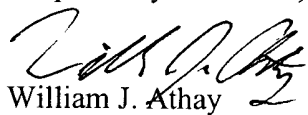
Ogata, *Long*, and *Liang* cannot overcome the above shortcomings of *Hyun*. Applicant therefore respectfully asserts that the presently pending claims 2, 6-15, 39-50, and 52 are patentable over the cited references. Applicants therefore respectfully request that the rejections of the claims under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

In view of the foregoing, Applicants respectfully request favorable reconsideration and allowance of the present claims. In the event the Examiner finds any remaining impediment to the prompt allowance of this application that could be clarified by a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney.

Dated this ____ day of September 2003.

Respectfully submitted,



William J. Athay
Attorney for Applicant
Registration No. 44,515
Customer No. 022901

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